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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/014,259	12/11/2001	Steven C. Deane	GB 000179	2761

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EXAMINER

LANDAU, MATTHEW C

ART UNIT PAPER NUMBER

2815

DATE MAILED: 10/21/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/014,259

Applicant(s)

DEANE, STEVEN C.

Examiner

Matthew Landau

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) 12 and 13 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 and 9-11 is/are rejected.
- 7) ☒ Claim(s) 6-8 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☒ The proposed drawing correction filed on 29 July 2003 is: a) ☒ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Drawings

The drawings were received on July 29, 2003. These drawings are acceptable.

Claim Objections

Claim 6 is objected to under 37 CFR 1.75(c) as being in improper form because a multiple dependent claim cannot depend from any other multiple dependent claims. See MPEP § 608.01(n). Accordingly, claims 6-8 have not been further treated on the merits.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grupp et al. (US Pat. 6,066,018, hereinafter Grupp) in view of Greene et al. (US Pat. 6,496,238, hereinafter Greene).

In regards to claim 1, 9, and 11, Figures 2 and 3 of Grupp disclose a supporting plate 4 and control elements 6/7, wherein electrical connection to the control elements is via a same side of the device, and the profile of the plate is non-rectangular. Grupp further discloses a pattern of electrodes and conductive paths (column 3, lines 45-50). Regarding claim 11, Grupp also

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discloses (Figures 1-3) method of constructing an active matrix device comprising shaping a preformed active matrix device. Grupp does not explicitly disclose the control elements arranged in an array with a set of row address conductors with a row driver circuit and a set of column address conductors with a column driver circuit. However, this arrangement of row and column address conductors with corresponding driving circuits is extremely common in the art. For instance, Figure 9c and 9g of Greene discloses a set of row address conductors 186 for addressing the array to which selection signals are applied by a row driver circuit, a set of column address conductors 182 on the plate to which data signals are applied by a column driver circuit for conduction to the array, wherein connection from the respective driver circuits to at least some of both sets of address conductors is via the same side of the array (col. 14, line 63 – col. 15, line 19). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of Grupp by using the array configuration of Greene. The ordinary artisan would have been motivated to modify Grupp in the manner described above for the purpose of fabricating a functional LCD device with small outlines (see abstract).

In regards to claim 2, a further difference between Grupp and the claimed invention is connection from the row driver circuit to the row address conductors is via respective connectors which are substantially parallel to the column address conductors within the array area. Figures 9c and 9g of Greene disclose a connection arrangement wherein connectors 200 from the row driver circuit to the row address conductors 186 are substantially parallel to the column address conductors 182 within the array (column 15, lines 1-5). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to further modify the

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invention of Grupp by using the connection arrangement of Greene for the purpose of reducing the capacitive coupling between the conductors.

In regards to claim 3, a further difference between Grupp and the claimed invention is connection from the column driver circuit to the column address conductors is via respective connectors which are substantially parallel to the row address conductors within the array area. of Greene discloses a connection arrangement wherein connectors from the column driver circuit to the column address 182 conductors are substantially parallel to the row address conductors 186 within the array (column 15, lines 5-10). In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to further modify the invention of Grupp by using the connection arrangement of Greene for the purpose of reducing the capacitive coupling between the conductors.

In regards to claims 4 and 5, Figure 2 of Grupp discloses the profile of the plate is substantially symmetrical about perpendicular axes.

In regards to claim 10, Grupp discloses the lower layers 26 include a reflective film (column 4, lines 4-7). Therefore, the display is reflective.

Claims 1, 4, 5, and 9-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grupp in view of Burrell et al. (US Pat. 5,680,192, hereinafter Burrell).

In regards to claim 1, 9, and 11, Figures 2 and 3 of Grupp disclose a supporting plate 4 and control elements 6/7, wherein electrical connection to the control elements is via a same side of the device, and the profile of the plate is non-rectangular. Grupp further discloses a pattern of electrodes and conductive paths (column 3, lines 45-50). Regarding claim 11, Grupp also

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discloses (Figures 1-3) method of constructing an active matrix device comprising shaping a preformed active matrix device. Grupp does not explicitly disclose the control elements arranged in an array with a set of row address conductors with a row driver circuit and a set of column address conductors with a column driver circuit. However, this arrangement of row and column address conductors with corresponding driving circuits is extremely common in the art. For instance, Figures 1 and 3 of Burrell disclose an LCD device with a set of row address conductors 16 for addressing the array to which selection signals are applied by a row driver circuit, a set of column address conductors 18 on the plate to which data signals are applied by a column driver circuit for conduction to the array, wherein connection from the respective driver circuits to at least some of both sets of address conductors is via the same side of the array. In view of such teaching, it would have been obvious to the ordinary artisan at the time the invention was made to modify the invention of Grupp by using the array configuration of Burrell for the purpose of fabricating a functional LCD device capable of displaying complex patterns while maximizing viewing area relative to the overall glass size (column 2, lines 31-44).

In regards to claims 4 and 5, Figure 2 of Grupp discloses the profile of the plate is substantially symmetrical about perpendicular axes.

In regards to claim 10, Grupp discloses the lower layers 26 include a reflective film (column 4, lines 4-7). Therefore, the display is reflective.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew C. Landau whose telephone number is (703) 305-4396.

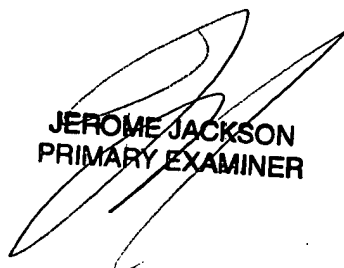
The examiner can normally be reached from 8:00 AM-4: 30 PM. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Lee can be reached on (703) 308-1690. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

Matthew C. Landau

Examiner

October 15, 2003


JEROME JACKSON
PRIMARY EXAMINER